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OPEN HOUSE AND PUBLIC MEETING

OMEGA CHEMICAL CORPORATION SUPERFUND SITE  
PRESENTATION AND PUBLIC COMMENT

AUGUST 31, 2010

WHITTIER COMMUNITY CENTER  
7360 WASHINGTON AVENUE  
WHITTIER, CALIFORNIA 90602



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AUGUST 31, 2010  
  
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7360 WASHINGTON AVENUE  
  
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13

Steve Berninger, Attorney

14

Glenn Bruck, Hydrologist

15

Matt Salazar, RPM

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Tom Perina, Project Manager CH2MHill

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Kelly Freeman, EPA Contractor

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1 WHITTIER, CALIFORNIA; TUESDAY, AUGUST 31, 2010

2 7:01 p.m.

3  
4 MS. LANE: Good evening, everyone. I first want to  
5 thank you, each of you, for taking time to come out  
6 tonight. Your involvement with our cleanup at the Omega  
7 Chemical Corporation Superfund Site is appreciated. We are  
8 here today to give a presentation on a proposed plan for  
9 the groundwater portion or what we call the Operable Unit 2  
10 of the site. The proposed plan is to address groundwater  
11 contamination outside of Operable Unit 1, which is  
12 downgradient from the former Omega property.

13 My name is Jackie Lane, and I am your community  
14 involvement coordinator for this site. Our regional  
15 offices are located in San Francisco. And I hope you were  
16 able to sign in, which I tried to make sure everyone did.  
17 That's a record of who came tonight, and also, I try to  
18 check it against our mailing list to make sure everybody is  
19 on it and gets future information.

20 The proposed plan fact sheet along with the  
21 presentation for tonight has our agenda on top. It also --  
22 the fact sheet itself has information on how to get in  
23 touch with myself and the project manager for the Operable  
24 Unit 2. In addition to our presentation, of course, we are  
25 here to record verbal comments, which will be done later.

1 I wanted to let you know that we did get a formal  
2 request to extend the comment period, so now our comment  
3 period will be from August 23rd through October 21st.  
4 August 23rd through October 21st. It's required that we  
5 have a court reporter with us tonight to actually record  
6 the presentation itself, any clarification questions that  
7 you make, and then, of course, the actual comment period.

8 Let's see. We hope that you will be able to hold  
9 your questions until the project manager is completed with  
10 our presentation, and then we'll give more than enough time  
11 for you to ask clarification questions. I will be  
12 facilitating the formal comment period, and how that will  
13 work is that I will just call people up as they raise their  
14 hand for you to come up and make your formal comment. At  
15 that time, I would like you to state your name, and if you  
16 are representing anyone, to do that also, and to spell your  
17 name.

18 The comments that are received tonight and  
19 anything that is received by mail, either by fax, e-mail or  
20 written, needs to be postmarked by October 21st to be  
21 considered and will be addressed in what we call the  
22 responsiveness summary. This will be -- will accompany our  
23 Record of Decision. This document -- this approved  
24 document actually memorializes EPA-selected plans for the  
25 site.

1           We will also do a notice in the Whittier Daily  
2 News when this formal document becomes available, and we  
3 normally house it in the site depository, which is your  
4 Whittier Public Library here in town. We also do a fact  
5 sheet that summarizes our decision, and we will send it to  
6 the site's mailing list.

7           Are there any questions about that?

8           Great. I'd like to take time to introduce a  
9 couple of people before we bring our speaker up. We have  
10 with us today Fred Schauffler. Is he in the room? There  
11 he is (indicating). He's our section chief for Section 4,  
12 which the Omega site is under. We have Steven -- I always  
13 mess his name up -- Beringer?

14          MR. BERNINGER: Berninger.

15          MS. LANE: He's our site attorney. And then we have a  
16 new team member named Matt Salazar who you will be seeing  
17 more of as time goes by. We have Tom Perina and Kelly  
18 Freeman, who was helping me outside, who is our EPA  
19 contractor. And we have Lynda Deschambault, who is our  
20 remedial project -- remedial project manager. Her  
21 presentation today shouldn't go longer than 30 minutes.  
22 And then if we -- when we get to the clarification  
23 questions, I do want you guys to speak loudly and clearly  
24 for the court reporter, as I mentioned before.

25          A few logistics: There are bathroom outside this

1 door to the left, as well as the water fountains for your  
2 convenience. At the end of the presentation, we'll have  
3 time for the audience to ask more questions. Depending on  
4 how long it takes for us to get through the presentation  
5 and any questions you have, we may have a little break  
6 between that and the comment period, or we may just go  
7 straight through, and that all depends.

8 And then, also, we'll stay afterwards for any  
9 additional questions and continue our availability session  
10 after everything is over. So without further ado, I'd like  
11 to ask Lynda to come up and start her presentation. Thank  
12 you.

13 MS. DESCHAMBAULT: Thank you, Jackie. I'm Lynda.

14 So I'm going to try to get this done in 30 minutes  
15 here. I'm -- I tend to be a fast talker. I'll do my best  
16 to get all the information out to you in a timely, succinct  
17 manner. What we have to cover tonight is some site  
18 background and history on the Omega Chemical Corporation  
19 Site. I also want to go over with you a summary of what is  
20 called the "RI/FS." "RI" stands for the Remedial  
21 Investigation, and "FS," the feasibility studies. So I'll  
22 explain to you what those are and what the findings were.

23 Tonight we are going to talk about EPA's preferred  
24 alternative. After we do the RI/FS, we look at the various  
25 alternatives that were chosen, and we pick the preferred



1 alternative. That is what you see in the fact sheet in the  
2 proposed plan that you've been -- that you've received.  
3 And we'll talk some more about the next steps, as Jackie  
4 clearly explained, and the public comment period is until  
5 October 21st.

6 Jackie also introduced our team. There is a few  
7 folks that weren't here tonight. Myself and Matt Salazar  
8 are RPMs; Steve, again, is our attorney; Linda Ketellapper  
9 does a lot of work with case development; Glenn Bruck is a  
10 hydrogeologist; and Jackie, you just met. I don't think  
11 DTSC made it. I haven't seen -- oh, there's Julie. DTSC  
12 is here. That's the Cal EPA Department of Toxic Substances  
13 Control.

14 I think you all know where we are right now, but  
15 this is just a little orientation of the -- where the Omega  
16 Chemical Site is located. Here between Highway 605 and  
17 Highway 5, you have this map, again, in your handout. It  
18 shows how the Omega 2 plume, which is the groundwater  
19 contamination that extends generally downgradient from the  
20 source area. So Operable Unit 1, which you'll see here, we  
21 did a managed site EPA. It's a term you are going to hear  
22 a lot tonight. "OU1" is Operable Unit 1 and OU2.

23 Operable Unit 1 is where the former Omega Chemical  
24 Corporation Site operated, and it's right along Whittier  
25 Boulevard.

1           And then Operable Unit 2 is the groundwater plume  
2   that extends four-and-a-half miles downgradient, about  
3   one-and-a-half miles wide. And it is advancing it to at  
4   least 540 feet per year is what we estimate.

5           So that gives you a little orientation of what we  
6   are talking about. You can see the area is quite  
7   industrialized. Within that plume there are a number of  
8   other facilities that contribute to the contamination that  
9   has extended downgradient from Operable Unit 1.

10          Just a little bit of site history on the Omega  
11   facility location. In the '30s, it was primarily  
12   agricultural land, and then in the '60s, they did some dye  
13   making and stamping machine shop. There was an automobile  
14   conversion there for a while. Bachelor Chemical. So a lot  
15   of industrial uses started coming in. And then from '76 to  
16   1991 is when Omega Chemical operated there -- a solvent  
17   recovery system there. And from 1991 until now it's been  
18   used intermittently for various light industry and then the  
19   auto body shop there at the facility.

20          During the years that Omega Chemical Corporation  
21   was there, it was 1976 to 1991 when they operated. And  
22   what they did is they were a chemical recycling and  
23   reformulation facility. A number of facilities that had  
24   byproducts and waste took their chemicals to this facility  
25   to be handled and disposed of per EPA's -- per a

1 preventative facility. A number of entities brought their  
2 materials here to be disposed of properly at the Omega  
3 Chemical facility. And they primarily handled chlorinated  
4 solvents. A lot of manufacturing processes require  
5 chlorinated solvents to degrease, remove oil from parts  
6 while they are processing them.

7           There also is a lot of Freon, chlorinated solvents  
8 that are used as refrigerants. And basically, over -- we  
9 estimate that over 18,000 tons of hazardous substances were  
10 brought to this facility. That doesn't mean 18,000 tons  
11 were spilled, but 18,000 tons of chemicals were processed  
12 through this facility during those years. Unfortunately,  
13 many of them were mismanaged and released either through  
14 corroded drums or poor management practices.

15           So again, I just want to explain a little bit more  
16 about the Omega site and what EPA does to call operable  
17 units, and we have divided the Omega Chemical site for a  
18 matter of handling the sites in what we call three operable  
19 units.

20           Operable Unit 1, as I briefly explained, is the  
21 actual area where the facility was located. And what we  
22 have there, we have the groundwater, as well as the Vadose  
23 zone, which is the soil above the groundwater that had been  
24 contaminated and needed to be cleaned up right near the  
25 former Omega property.

1           OU2, as I said, is the contamination downgradient,  
2   and within that, there is a number of other facilities that  
3   have commingled with that plume. And the plume does  
4   impact -- has impacted five water supply wells. Those  
5   water supply wells continue to meet drinking water  
6   standards, but there have been some detections of chemicals  
7   at them, and we'll talk a little bit about that tonight.

8           And Operable Unit 3, as some of you are here to  
9   talk about, and it's not heavily on our agenda. I tried to  
10   talk to some of you individually before, and I know that  
11   Jackie and others were giving you materials, but Operable  
12   Unit 3 is the indoor air impacts that occurred at or near  
13   the facility. So right around Operable Unit 1 where the  
14   soils and water are heavily contaminated, we have a poster  
15   back here that explains the mechanism of vapor intrusion of  
16   how those chemicals can actually evaporate and get into  
17   some buildings when you are close to the source.

18           Now, vapor intrusion is not an issue over Operable  
19   Unit 2, and I'll talk with you briefly about the human  
20   health risk assessments and the conclusions of that. But  
21   Operable Unit 3, for purposes of EPA, is how we're handling  
22   or naming the area near the Omega plant -- the former Omega  
23   facility.

24           Again, the focus tonight is on Operable Unit 2 and  
25   the groundwater. There are posters in the back -- some of

1 these are hard to read -- we put back there for you. If  
2 you didn't get a chance to check them out before the  
3 meeting, please go ahead and do so afterwards. Anytime now  
4 or after the meeting, I'm happy to talk with you one on one  
5 about any of those.

6           These outlines show what we have done already at  
7 the site related to the Operable Unit 2 groundwater. We --  
8 again, I talk about -- oops, sorry -- about how the Omega  
9 Chemical Corporation Site operated through '91. Around  
10 1984 and 1988, the Department of Health Services did issue  
11 some orders to them. They were concerned about cleaning up  
12 the site.

13           Again, in '91 and 1995, the Department of Toxic  
14 Substances also started pursuing the owner of the Omega  
15 Facility. And it was in 1995 that the EPA actually issued  
16 an order to a number of parties to remove -- there were  
17 over 3,000 drums, approximately 3000 drums on the site that  
18 were in a state of disrepair and leaking and corroded.

19           From '98 to 2007, investigations began, and I'll  
20 talk to you a little bit about what is involved there, but  
21 a lot of field studies to determine the nature and extent,  
22 to determine how far this material had spread and how far  
23 it had gone. And the results of that was the determination  
24 that it's four-and-a-half miles long and about  
25 one-and-a-half miles wide.

1           2007 and 2009, at the source area up there at OU1,  
2   an interim groundwater pump-and-treat system has been  
3   installed and has been operating since July of last year.  
4   And the purpose of that system is to keep the heavily  
5   contaminated groundwater in OU1 contained to OU1, and not  
6   continue to migrate downgradient and continue to add  
7   additional chemicals and contamination, heavy  
8   concentrations downgradient OU2. That has been up and  
9   operating and has removed a lot of the contamination, but  
10   its purpose is to contain the levels at that area.

11           And then now, 2010, is where we are now, the  
12   Remedial Investigation/Feasibility Study. We love  
13   acronyms. I tried my best to remove what I could out of  
14   here, but RI/FS is the Remedial Investigation/Feasibility  
15   Study. It was issued in 2010, and that was to determine  
16   the best way to clean up the contamination of the site.  
17   And here we are tonight with the proposed plan, which is  
18   EPA's proposal for how to contain the OU2 groundwater  
19   plume. The restoration remedy will come later. What we  
20   are talking about tonight is just containing that plume.  
21   As I mentioned, it's estimated to be moving -- I'd say it's  
22   at least 500 feet per year. So our goal is to keep that  
23   plume from moving.

24           Just a brief thing on the Superfund process.  
25   People ask, you know, "What takes so long?" "Where are you

1 at?" "What's next?" "Where are you going?" The Superfund  
2 processes start at the site discovery, which I told you.  
3 It was early when the state called in our assistance and  
4 asked us -- I keep pushing that. I'll get used to this.  
5 The site discovery is when we actually find that the  
6 contaminations exists. Then it actually goes on the  
7 National Priorities List or the Superfund List is sometimes  
8 what you hear it called. The Remedial Investigation  
9 investigates, the Feasibility Study then looks at  
10 alternatives, and here we are tonight for Operable Unit 2  
11 during our Public Comment Period.

12 After that, we have a Record of Decision where we  
13 actually select the remedy based on input from these  
14 meetings and public comment. We go into a design of a  
15 system and ultimately remedial action of the system.  
16 Operable Unit 1 is a little further along. As I mentioned,  
17 they've already designed the pump-and-treat system for the  
18 water, and there is a remedy that should be starting, and  
19 we expect the work planned in the next few weeks for the  
20 soil cleanup in OU1. The OU1 had soil and water; OU2 is  
21 the groundwater plume that we are talking about tonight.

22 So what is the RI/FS that just was released  
23 recently? That is the way that we characterize the site.  
24 Extensive amount of field investigation, sampling, file  
25 review is done to determine how far the plume has gone.

1 And we also do -- someone was asking me earlier tonight --  
2 the Human Health and Risk Assessment is also done to  
3 determine what the exposure and risk could be from this --  
4 from this contamination.

5 The Feasibility Study is then done to develop a  
6 number of alternatives and takes a look at all of the  
7 alternatives that we could feasibly consider for cleaning  
8 up the site. Again, this one is to contain the plume.

9 And then from there, we formulate a number of  
10 alternatives and we find the most promising ones, and then  
11 the EPA selects our preferred proposed plan.

12 So our plan is complete. It was just completed  
13 this month. It's online. It's a lovely, thick document,  
14 probably about maybe 10 to 12 inches, so a lot of data has  
15 gone in there over the years. So, just a quick summary of  
16 the investigation. It was -- more than 1600 groundwater  
17 samples were collected and a number of file reviews. We  
18 worked with the Regional Water Quality Board and DTSC as  
19 individual sites, 20 sites within OU2 that had a lot of  
20 file information, research, their own sampling. So we  
21 coordinated with those two state agencies to get that  
22 information. Again, that's the Department of Toxic  
23 Substance Control, and this is the Regional Water Quality  
24 Control Board.

25 A lot of field activities, a lot of aquifer



1 testing, soil testing was performed, the Human Health and  
2 Ecological Risk Evaluation, and then we continued to do  
3 work to identify other sources. As I said, we identified a  
4 couple of dozen sources that commingle within our plume,  
5 and we continue to research others that might be out there.

6 So just to give you an idea of the scope, I put  
7 this slide in to let you know that there is -- EPA has put  
8 in more than 30 wells, and OPOG, I mentioned that there was  
9 a settlement with a number of parties to remove the drums.  
10 Those settling parties later became the Omega Chemical  
11 Potentially Responsible Parties organized group. "PRP" is  
12 a term we use here a lot for "Potentially Responsible  
13 Parties." They're the ones that have contributed to the  
14 contamination. So they formed a group. Some of them are  
15 here this evening.

16 OPOG, under the direction of EPA and various  
17 settlements, has 14 wells. So we have a lot of wells out  
18 there that are being sampled twice a year, and some of them  
19 have been sampled since 1999 and 2002, just to give you an  
20 idea of the depth of the extent of the information that  
21 we've collected. And at the individual facilities, the  
22 ones that the state agency has and some other facilities  
23 have over another hundred wells, as well. EPA does a lot  
24 of quality control, duplicates, replicates, to make sure  
25 that all that field data is peer reviewed, checked, and

1 validated.

2           This slide gives you a little bit of a snapshot.  
3 It's on your fact sheet. This one is hard to read, but if  
4 you look at your fact sheet, there is a list of  
5 contaminants of concern. So in this OU2 groundwater plume,  
6 what chemicals are there that are of a concern to us? And  
7 the list on the -- this lists the names of the chemicals  
8 that we are concerned about that exceed contamination  
9 notification levels. This shows you the maximum  
10 concentration that has been found at any time, and this  
11 shows the drinking water standard for comparison purposes  
12 of how contaminated the OU2 is. And, again, that's all in  
13 your handout, or you're free to pick one up if you didn't  
14 grab one.

15           So the extent of the groundwater that was  
16 determined from the remedial investigation, again, is on a  
17 diagram on the back, and also a handout in your fact sheet.  
18 This shows concentration levels. What EPA does is we  
19 determine the outer boundary based on the action level.  
20 The five parts per billion or micrograms per liter is parts  
21 per billion. So the outer border of this Operable Unit 2,  
22 this divides Operable Unit 2 groundwater plume that some  
23 four-and-a-half miles. At this area, it's at the action  
24 level of 5 PPB. Outside of that level meets standards.  
25           This also shows there is some concentrated hot

1 zones within the plume. This one is at a hundred parts per  
2 million, and these two areas here, and a couple of other  
3 ones are at high hot concentrations of up to 500.

4 So, again, this process -- and how we determine  
5 this is based on in-field investigations, studies that are  
6 done out in the field, gather extensive groundwater  
7 samples, and it does show that the concentrations continue  
8 to be high here, with diminishing, as you can see, as you  
9 move away from the site. What EPA has done after gathering  
10 that data is then done what is called a "groundwater  
11 model," a computer model to fit the data that we know in  
12 the field to help us explain and work with the situation  
13 that is there at the Operable Unit 1 groundwater plume.

14 So the Human Health Risk Assessment was done, and  
15 this is for Operable Unit 2. This is for the groundwater.  
16 So the groundwater extends from about 40 feet below surface  
17 down to 200. This isn't water that's at the surface, and  
18 this isn't the water that you are drinking. This is the  
19 water that is flowing underneath these properties, these  
20 cities. Is there a human health or risk from this  
21 groundwater plume that is below us?

22 And what they do is they look at what is the  
23 potential for dermal contact on the skin, ingestion to  
24 drink it, or can it be -- would it vaporize and you  
25 actually would inhale it. So they looked also at possible

1 receptors. It's important to look at not just adults, but  
2 vulnerable populations like children, because they could  
3 respond differently. So the Human Health Risk looked at  
4 the potential of relative exposure, the typical exposure  
5 recipients, and found that there was no risk for vapor  
6 intrusion from the OU2 groundwater.

7           There is some Operable Unit 1 exposure -- I know a  
8 number of you are here on Operable Unit 1 vapor intrusion  
9 issues that have occurred, but that is at the Operable Unit  
10 1 area near the facility where there is some high levels of  
11 contaminated soils and groundwater. As you move away from  
12 the site, Operable Unit 2, Human Health and Risk Assessment  
13 found that there was no potential for vapor intrusion.

14           Do you want to hold questions, or --

15           MS. LANE: Do you have a question?

16           UNIDENTIFIED SPEAKER: I'm just wondering what is Unit  
17 1 -- what's the mileage?

18           MS. DESCHAMBAULT: I have it up on my mini HP back  
19 there. It just extends from Whittier Boulevard -- it's a  
20 block, a city block-and-a-half. At the very -- where the  
21 building is and about ten other buildings around it. I'm  
22 just going to be very general.

23           UNIDENTIFIED SPEAKER: Yeah.

24           MS. DESCHAMBAULT: But approximately, it's just that  
25 area, we'll say a couple city blocks versus the

1 four-and-a-half mile plume of groundwater.

2 UNIDENTIFIED SPEAKER: So like Whittier and Washington?

3 MS. DESCHAMBAULT: Yes. The corner there, Whittier and  
4 Washington. Actually, it's not even all the way over to  
5 Washington, just past Putnam and at the Omega site. I'm  
6 happy to show you later and take a look at that. It's a  
7 little bit confusing. I understand the question. So as  
8 you move away from the site, it's the groundwater plume  
9 that's moving away. The soils are no longer saturated.  
10 And so looking over the OU2 plume, there is no vapor  
11 intrusion issues. We tested at a residential facility over  
12 there called Whispering Fountains and found that there was  
13 no potential for exposure.

14 But we also did not find that there was any  
15 potential for dermal contact. There's not any  
16 opportunities for people to bathe in this water. The water  
17 that comes into your tap comes from a different aquifer.  
18 There's no exposure to ecological receptors, endangered  
19 species in the area. The only significant risk would be if  
20 you were to drink this water. If for some reason you drop  
21 a well and were to drink it, but that is not the water that  
22 you are drinking. The water you are drinking comes from a  
23 deeper aquifer, and it is two different levels.

24 So what you have is we have the contamination from  
25 Omega and the upper aquifer from about 40 feet of the water

1 table to about 200. In between you have this  
2 semi-nonpermeable layer that separates another aquifer that  
3 starts at 200 feet and goes below. The drinking water in  
4 the area typically is screened down here (indicating), and  
5 that's where the water is coming from.

6           However, we have found that some wells -- five  
7 wells we know have been screened starting right in this  
8 200th, sort of the gray area that have had -- been  
9 impacted, have been found to have some hits of  
10 contamination. Those have well head treatment to meet the  
11 State of California and federal law, have to meet drinking  
12 water standards and have met drinking water standards and  
13 continue to meet drinking water standards.

14           Some of them have had well head treatment systems  
15 on them since the 1980s. So the water you've been drinking  
16 is the water down here, is treated to drinking water  
17 standards. The Omega OU2 plume is this upper gradient here  
18 (indicating).

19           So after we do the Remedial Investigation, figure  
20 out where the material is, how far it is, how far down, how  
21 far along, we look at what's called the Feasibility Study,  
22 and we look at what we can do to -- what types of  
23 technology that are available to deal with the situation  
24 that we've identified, what are the various mixes, and what  
25 would be the most promising strategy to actually deal with

1 the situation.

2 It goes through a number of steps. It looks at  
3 what are the remedial action objectives, what are the  
4 cleanup technologies, what are the alternatives, what  
5 happens when we compare them one to another, and then EPA  
6 selects our preferred alternative.

7 So that's the Feasibility Study, and the focus,  
8 again, tonight is to present and explain our preferred  
9 alternatives for Operable Unit 2. There was an RI/FS that  
10 was done for Operable Unit 1 and dealing with the soils and  
11 water in that small couple, few blocks. I don't want to --  
12 I say a few blocks just to be covered, depending upon how a  
13 block is defined, but tonight we're looking at what  
14 happened with the Operable Unit 2.

15 I'd like to just explain the objectives of this  
16 containment remedy, this interim containment remedy. What  
17 are we trying to achieve with what we are proposing to you  
18 tonight? I'm going to explain to you what we're proposing.  
19 What's important to know that what we are trying to achieve  
20 with that is -- our first is to make sure that we don't get  
21 any human exposure from these chemicals. We don't want it  
22 to continue to spread; we don't want it to get into that  
23 lower aquifer; we don't want it to move wider, further  
24 downstream, or down below, as well.

25 So our goal is to protect any more human exposure

1 or any more drinking water wells from getting in contact  
2 with the material. We also want to keep that from  
3 spreading in all directions, which is the second objective.  
4 And then ultimately, we also want to make sure -- I  
5 mentioned how there is some hot spots in there. We don't  
6 want those hot spots spreading even further. We want to  
7 contain those hot spots, and we don't want them getting  
8 into the lower concentration areas.

9 So those are our objectives. So we are looking at  
10 what technologies and what alternatives do we have to keep  
11 this Operable Unit 2 plume from impacting more wells, from  
12 spreading, and keeping the high -- we wouldn't want those  
13 high concentration areas to go any further.

14 So to do that, our contractor, Hill (phonetic),  
15 worked with us, and we developed a number of alternatives.  
16 And all of the alternatives that were considered in the  
17 Feasibility Study were based on pump and treat, a  
18 groundwater treatment system, where we take the water, pass  
19 it through systems to clean it up.

20 There are other ways to clean up sites, in-situ  
21 treatments and things. Those are not feasible at Omega  
22 because the plume is so large. At small contamination  
23 zones, you can put up reactive barrier walls and things,  
24 but when you are talking about a plume of this size, the  
25 only alternative that we've left in in our process was



1 looking at the groundwater extraction. And the in-situ  
2 treatment technologies were screened out for consideration  
3 for what we needed to do at the site.

4           Once we looked at groundwater treatment, what you  
5 do is look at, well, what are we going to do with that  
6 water? The Southern California water is, you know, liquid  
7 gold down here. It's -- all the drinking water in the  
8 water basin is considered drinking water. And it's  
9 important that all of the end uses would comply with  
10 reusing that material and keeping it here in the water  
11 basin.

12           So we looked at the opportunity of taking that  
13 water and using it for drinking water after it was cleaned  
14 up. We can use it as reclaimed water, industrial water.  
15 We also looked at reinjecting it into the deeper aquifer,  
16 cleaning it up, and then reinjecting it. And we also  
17 looked at the opportunity of discharging it to the  
18 spreading basins. Just off of -- north of 605, there is a  
19 spreading basin area where a lot of water -- it's a large  
20 wetland-almost area where the materials could be released  
21 and allowed to return to the aquifer in that manner.

22           So all of them, whatever the situation, would  
23 require pump and treat, and would require multiple  
24 treatment technologies because you saw the list of  
25 chemicals that are in there. Each of those chemicals needs

1 a different type of technology to clean them up. Similiar  
2 if you've got your filter on your sink at home. Even when  
3 you go to Home Depot, you see you have a number of choices  
4 of what they'll remove. Well, we are talking about  
5 industrial site systems where you have to have a treatment  
6 chain of a number of things to make sure that we've cleaned  
7 them all up, and we've got to get them all to drinking  
8 water standards.

9           So we kept a number of technologies in there, so  
10 any of the end uses would go through a number of  
11 treatments, multiple technologies, to remove multiple  
12 chemicals. Whether it's organic, inorganic, metals, salts,  
13 all go through -- all of the alternatives considered would  
14 go through all of those treatments.

15           So the alternatives that we looked at are these  
16 six. So when you look at the Feasibility Study, what it  
17 does is it has an analysis of six alternatives that EPA  
18 considered, and we have a number of criteria we consider  
19 those against. The first one that we are required to do is  
20 no action. We do nothing. So the first alternative we use  
21 as our baseline, what if we do nothing? There is an  
22 analysis done to determine the no-action alternative.

23           Then what we look at is what would happen if we  
24 just extracted down at the toe, down there near Imperial at  
25 the tip of the toe where it's only 5 parts per billion, and

1 just pulled from down there and just treated the water  
2 there for drinking water standards.

3 Then we looked at the alternative, well, what if  
4 we extracted throughout the plume, plume-wide extraction?  
5 So alternatives 3, 4, 5, and 6 looked at extracting through  
6 the plume, not just putting a pumping well down at the very  
7 toe, but putting in wells throughout the plume, and then  
8 treating them in the different ways.

9 So one would be plume-wide extraction with the  
10 reclaimed water as the end-use, plume-wide extraction with  
11 the reinjection as the end-use, plume-wide extraction with  
12 discharging to those spreading basins, and then plume-wide  
13 extraction with the drinking water. So we lay these out,  
14 we take a look at them, and then what EPA does is they go  
15 through nine criteria.

16 So under the Superfund process, we go through --  
17 we do this with all sites. We do these -- we've done the  
18 RI; we've done the FS; we've got our alternatives; we  
19 analyze them against nine criteria. Two of them are  
20 must-do criteria. They have to meet the fact that they're  
21 overall protective of human health -- that is EPA's mission  
22 and goal -- and they have to have compliance with other  
23 regulatory applicable relevance and appropriate  
24 requirements that already exist.

25 So we have to meet, you know, the Endangered.

1 Species Act, or we have to meet the Drinking Water Act that  
2 is set by federal, and we have to meet the California Act.  
3 Then we look at other criteria. We look at how long -- is  
4 this going to be effective for long term? Is this going to  
5 reduce the toxicity of these chemicals? Is this going to  
6 reduce the volume? We look at its short-term  
7 effectiveness, and we look at how feasible it is to  
8 implement. Is this something that can actually be done?  
9 We then look at cost. And the last two are looking at  
10 state acceptance, and what we are doing tonight is  
11 community acceptance.

12 We have already received state concurrence on our  
13 proposed plan, and we are looking tonight for community  
14 input on our proposed plan. So what we do in FS, I told  
15 you we had six alternatives that we chose. Everything from  
16 the no action; No. 1, No. 2 with the leading edge with  
17 drinking water, but just at the toe of the plume and  
18 nowhere else we would be pumping the water. These other  
19 three are with extraction throughout the plume, a number of  
20 wells throughout the four-and-a-half mile plume with the  
21 different end uses. This is for reclaimed water, this is  
22 for reinjecting back into the ground, this will be going to  
23 the spreading basin, and this one to drinking water  
24 (indicating).

25 This is very difficult to read, but you have it in

1 your fact sheet, and we also have it back there on a  
2 poster, which is why we put it on a poster. I'm going to  
3 walk through, but you can follow along with me on the chart  
4 and your fact sheet. So across the top, we have the six  
5 alternatives, and along the side we have those nine  
6 criteria. Again, the two that they must meet are overall  
7 protection of human health and compliance with ARARs.

8 Well, if we don't do anything, that's not going to  
9 meet those requirements. So we have this that says no  
10 action is not going to meet the requirements. Neither  
11 would leading edge, because what we are trying to do, as I  
12 explained to you, is not only contain the plume, but we  
13 don't want those hot spots from spreading and contaminating  
14 currently lower concentration water.

15 So we don't feel that -- wait, I skipped one.  
16 Back up. Leading edge with drinking water. That would not  
17 be protective because it would just be pumping at the toe,  
18 and it would not do anything about keeping the other hot  
19 spot materials from moving down. So we ranked that as  
20 "no." So those two alternatives are not EPA-preferred  
21 options because they don't meet our threshold criteria.

22 If we look at the reclaimed water end use, right  
23 now, there's already not a demand for some of this water.  
24 There needs to be -- somebody needs to want this water, and  
25 if they don't take the water, our system would at times be

1 shut down. The system we are proposing is a  
2 2000-gallon-per-minute system, and it needs to be operating  
3 in order to keep this system contained. We want to stop  
4 that migration, the 540 feet per year. And if we didn't  
5 have somebody taking the water, the system would be down  
6 part of the time and we wouldn't achieve our goal. So this  
7 one is a "yes" only, pending upon as long as we could find  
8 some sufficient demand in the area, that somebody would  
9 want this water.

10 The next ones are the plume-wide extraction with  
11 reinjection, and those would meet the requirements as well.  
12 There's the other two, spreading basin and drinking water.  
13 What we then do is we look at the long-term effectiveness  
14 and these other criteria explained and we do see the volume  
15 short term. And we look at each of them for that. So we  
16 rank them as either "yes," "no," and "medium," "high,"  
17 "low," and determine which one is which, if it fits with  
18 criteria and comes out highest on the list.

19 And the long-term effectiveness would not be  
20 effective for the "no action." It would only be medium at  
21 best for Alternative 1 if we just extract at the toe and  
22 nowhere else. All the others, we feel, are about equal.  
23 They would all be pretty high. Plume-wide extraction would  
24 be a good way to effectively and permanently contain the  
25 plume.

1           We look at the reducing of toxicity and mobility  
2 of the volume. Well, it doesn't apply if we take no  
3 action. We are not reducing anything.

4           For the leading edge with the drinking water  
5 end-use it would be a medium, because it would be just  
6 pulling at the toe and not throughout the plume. So you  
7 wouldn't be getting the secondary benefit of removing some  
8 mass in contamination.

9           The plume-wide extraction with the reclaimed  
10 water, because we are not sure if it would actually be  
11 pumping all the time, is also ranked medium. And, again,  
12 the other three alternatives we think would be good  
13 alternatives for reducing the volume, for reducing the  
14 toxicity.

15           Short-term effectiveness, they are about equal  
16 for, you know, what we would need to do to get it up and  
17 running and effective. The implementability is varied a  
18 little bit. The one that's low here is the reclaimed  
19 drinking water because it takes some effort to find someone  
20 to take this water. As we mentioned, there is not a lot of  
21 demand right now. So whether or not it could actually be  
22 implemented to be successful, yes, which would be that they  
23 have year-round demand for the water might rank that one  
24 lower.

25           And then we look at the cost of these six

1 alternatives and compare them to one another. And there  
2 would, obviously, be no cost for doing nothing, but the  
3 leading edge extraction with the drinking water end use,  
4 you look at the capital investment, the ongoing operation  
5 costs, and we compare those across the table at about 53.6  
6 million. And then the total of the reclaimed water is a  
7 little bit higher for determining agreements.

8           Then we look at the reinjection. Reinjection  
9 actually has some implications, because you don't want to  
10 take the water that is now contaminated and put it into  
11 that lower aquifer that is not contaminated. There is some  
12 regulatory issues, some regulatory concerns with doing  
13 that.

14           As I showed you in the picture, the lower aquifer  
15 is actually where the drinking water is. So there would be  
16 some regulatory requirements, and the actual standards for  
17 reinjecting are even higher than for some of the other  
18 alternatives, so they require even more extensive  
19 treatment.

20           The spreading basin gets pretty expensive because  
21 it's far away. I don't know if any of you know where it  
22 is. It's off the 605 freeway, and the logistics of trying  
23 to pipe that distance and carry heavy water that distance,  
24 and then the cost for the drinking water end use.

25           So what EPA does is it takes all these six



1 alternatives, these nine criteria, lays them out, and what  
2 we determined based on that chart, as you saw, is that the  
3 alternative 6 really seems to meet most of the criteria.  
4 It certainly meets our mandatory threshold requirements.  
5 All the others also are medium or are high, and it meets  
6 all of our goals. It meets the goal to contain it, it  
7 meets the goal for the hot spots not to be migrating, and  
8 it meets the goal from it spreading.

9           So it's protective of human health; it keeps the  
10 water from further degrading; it protects the wells that  
11 are currently clean as well. It would stop it from moving  
12 any further downgradient to affecting potentially other  
13 wells in the future.

14           And it's a beneficial reuse of water. As I  
15 mentioned, in this area, all the water in this area is  
16 considered potential drinking water, and it needs to be  
17 reused, and that's a requirement of the central basin.

18           What is my time exactly?

19           MS. LANE: Thirty-two.

20           MS. DESCHAMBAULT: So this is the alternative  
21 description that is on the poster in the back. And as I  
22 mentioned, it would be plume-wide extraction. So this is  
23 conceptual only in design, but there would be some pump and  
24 treat -- some wells, that would pump in this area just to  
25 the south of the hot spot area, and some down here also to

1 the south of this hot spot area (indicating). And then,  
2 again, we would pump down at the toe.

3 So it would be, in general, three general areas of  
4 where the water would be pumped. It would be pumped back  
5 up to some groundwater treatment plant. No location  
6 actually has been chosen at this time. That water would  
7 then get a connection into the drinking water system, and  
8 there would be some waste brine that would also need to be  
9 disposed of.

10 The water that we'll be pumping is very high in  
11 dissolved solids. So as you clean the water through these  
12 various systems, there would be a waste brine. So you see  
13 a connection there to the waste brine pipeline, is what it  
14 says here, for the waste. And then the bulk of the  
15 water -- I don't know, 80 percent of the water would return  
16 to the drinking water system as drinking water. It could  
17 be blended with drinking water is probably likely what  
18 would happen.

19 And we have talked with some of the drinking water  
20 purveyors/companies in the area, and there has been some  
21 interest. One of the comments that was made to us the  
22 other day is that it would be a lot cheaper than importing  
23 water to do that.

24 So, again, that's also a little difficult to read,  
25 but you can take a look back there afterwards. So that's

1 where EPA is at. We've been through this long process with  
2 the RI/FS. We've been through this process of reviewing  
3 the alternatives. We've picked our best alternatives --  
4 our preferred alternatives. And we're on our criteria nine  
5 tonight. We're here to hear from you what -- your comments  
6 that will be formally recorded and formally responded to.

7           So the 60-day comment period now -- it was 30. It  
8 has been extended. So as Jackie explained the process, you  
9 can do it tonight, you can do it in writing, or you can do  
10 it by fax. We factor your comments that we receive from  
11 you up until October 21st into our remedy until what we  
12 decide what we're going to do to contain this groundwater  
13 plume.

14           Ultimately, we sign a Record of Decision, and the  
15 Record of Decision is actually going to include a response  
16 to all of the public comments that we receive. And that  
17 will be available online and in various repositories. And  
18 then, ultimately, we look to implement the remedy, to get  
19 to work to keep this plume from moving, from spreading, to  
20 meet our objectives. To do that, we either negotiate with  
21 private parties, or we could use enforcement actions to  
22 order parties that aren't willing to settle with us.

23           So you can comment later tonight. So there is a  
24 slide, and it's also on your fact sheet, about where you  
25 can submit your comments. This is my contact information

1 and phone number and fax that rings direct to my desk.  
2 Happy to take your calls any time. And the RI/FS is  
3 actually next door at the public library, along with some  
4 of the other historical materials are stored here in the  
5 neighborhood as well as online, which is probably the best  
6 and easiest way to access it, and that Web site is also on  
7 your fact sheet.

8 So that is my presentation. We were going to take  
9 any clarifying comments about my presentation first, if we  
10 could try to keep those separate from your formal or public  
11 comments that you want reported. If there are any things  
12 that I presented that you would like me to further explain  
13 or go over a little bit better.

14 UNIDENTIFIED SPEAKER: On the piping from your pumps,  
15 from your wells, to the treatment, are those pipes  
16 double-walled or single-walled?

17 MS. DESCHAMBAULT: Well, the system needs to be fully  
18 designed. I guess my contractor is here tonight, and so is  
19 Mike, or Mike was.

20 What types of pipes are typically run?

21 MR. PERINA: The presumption would be double-walled.

22 MS. DESCHAMBAULT: The presumption, and for the costing  
23 was done, would be for the double-walled piping.

24 MS. LANE: Can I ask you guys to speak loudly, because  
25 the court reporter is trying to hear what you are saying

1 and you don't have a mic.

2 MS. DESCHAMBAULT: That's a good question, one I hadn't  
3 asked before. Anybody else have any good questions? Yes.

4 UNIDENTIFIED SPEAKER: Could you explain a little more  
5 about the 20 additional sources that are contributing to  
6 the plume? Who are they? Are they all downgrade from  
7 Omega?

8 MS. DESCHAMBAULT: Most of them are downgradient or  
9 near the facility. They are all listed in the Remedial  
10 Investigation, the one that we -- ones we have identified  
11 so far. So imagine this groundwater from one facility  
12 moving downgradient, but this is a very industrial area.  
13 There are other source areas. Some of them have been  
14 identified by name, and some of them have been listed  
15 generically in the RI. There is a section in the RI. I  
16 can help point you to them if you are interested in who  
17 those are that have been named by name. Some have not been  
18 identified, and there is an investigation still going on.

19 What that means is just that there is other spills  
20 beside Omega, there are other hot spots that have had  
21 spills. Some are not the same chemicals as Omega. So if  
22 you have a chrome plater downgradient that is contributing  
23 chromium that is now commingled with the Omega plume, so  
24 now, not only do we have to treat the contaminated  
25 solvents, the chlorinated solvents, the Freon, but we'll

1 have also have to make sure we treat the chromium and hex  
2 chrome that result from the source area.

3 And those source areas, many of them already have  
4 some action that is going on, either by our state  
5 stakeholders, either by the Department of Toxic Substances  
6 or Regional Water Quality Board. Not all of them. Some of  
7 them actually still need to be investigated. That's an  
8 investigation that is going to continue probably for some  
9 time.

10 It's difficult to identify all of the ones that  
11 maybe have polluted within this OU2 that dashed-line  
12 boundary, but I think we've identified 24 now. I think  
13 it's up to 24 source areas that are contributing to the  
14 plume.

15 There is also some oil production companies  
16 downstream in Santa Fe Springs at Cenco, as well as the oil  
17 field reclamation, OFR. So they're contributing  
18 hydrocarbons, oil, byproducts. And again, those weren't  
19 from the Omega facility initially, but because they are  
20 commingling, they are a source that's commingling with our  
21 source, we'll also have to clean up those contaminants as  
22 well when we pump the water.

23 UNIDENTIFIED SPEAKER: Is that Powerine, the old  
24 Powerine?

25 MS. DESCHAMBAULT: Yes, exactly. So those are just

1 some examples of various source areas, and I can help and  
2 talk to you afterwards and show you the section in the RI  
3 where you can find that.

4 MS. LANE: Any other questions?

5 UNIDENTIFIED SPEAKER: I wanted to ask about one of  
6 your nine evaluation criteria. You talked about state  
7 confirmation or state acceptance, getting state acceptance,  
8 and you only listed DTSC, but even in your preferred  
9 alternatives, you have drinking water end use which you  
10 would then also need DPH approval.

11 Could you tell me about that step in your process?  
12 Why is it just DTSC that has concurred with your  
13 alternative?

14 MS. DESCHAMBAULT: Well, DTSC is our lead agency on  
15 this for the state requirements, for the California state  
16 rules and regulations versus federal. Within that, there  
17 are -- under their jurisdiction -- maybe Fred could help me  
18 out here -- there is a number of other agencies.

19 MR. SCHAUFFLER: So for every Superfund site, there is  
20 the lead agency, which in this case is EPA. There is the  
21 supporting agency, which in this case is the state. The  
22 state designates one agency as a support agency, DTSC, and  
23 that's who we use as a point of contact to tell us what  
24 does the state think about this.

25 We rely upon DTSC to go talk to all of these other

1 sister agencies -- The Regional Water Quality Control  
2 Board, Department of Public Health, anybody else at the  
3 state level with an interest or a stake in the outcome --  
4 and then bring that back to us. So we do attend just one  
5 point of contact to talk to. We let DTSC resolve any  
6 differences within the state itself, if there are any. So  
7 we don't get put in that box. That's why you only see DTSC  
8 up there, but it really is DTSC, on behalf of the State of  
9 California, the representation of the state concurs.

10 And they concur on the proposed plan stage, we get  
11 to the remedy selection. We also are met by the state to  
12 see if the state concurs with our remedy selection or not.

13 UNIDENTIFIED SPEAKER: Can I ask a follow-up question  
14 for that? So by what you are saying, then, are you then  
15 saying that DTSC has already made contact with the other  
16 sister agencies as, such as EPA, and they are okay with it?

17 MR. SCHAUFFLER: DTSC. We have also talked to some  
18 other agencies, though we talked to DPH. In this case, for  
19 example, DPH has regulations that apply to when you use a  
20 water source, the water supply. Implementation would have  
21 to follow that policy requirement, so the 9705 policy. So  
22 there is that whole 12-step process about how you get from  
23 identifying your source to actually getting a permit to use  
24 it as a drinking water supply. So those requirements would  
25 come into play here in terms of remedies.



1 UNIDENTIFIED SPEAKER: But that would be at a later  
2 time?

3 MR. SCHAUFFLER: Right. Right. We talked to DPH about  
4 this, you know, "Is it possible to even consider"?

5 And the answer is, "Yes, but you've got to get  
6 through the 9705 processes to get to the end point."

7 UNIDENTIFIED SPEAKER: Understood.

8 MS. LANE: Okay. This gentleman and then this  
9 gentleman (indicating).

10 UNIDENTIFIED SPEAKER: The 97005 process is a very  
11 complicated process and a very lengthy process. Are you  
12 going to make the drinking water agency that is willing to  
13 take this water into their system be responsible for the  
14 9705 process, or is EPA going to be the lead on the 97005?

15 MR. SCHAUFFLER: That's a very good question. It's  
16 sort of a sticky point. The water purveyor in this case  
17 who gets issued the permit from DPH doesn't necessarily  
18 have to do all the work, obviously, certainly not pay the  
19 costs of the work. So we expect the private parties that  
20 implement the remedy will, in effect, do the work that is  
21 required to gather the data, put together an analysis that  
22 goes with the 97005 process.

23 The water purveyor who is going to be the end user  
24 of the water I'm sure will want to make sure that that  
25 satisfies their own concerns and needs and, obviously, meet

1 the requirements of DPH. So instead of being somewhat of a  
2 collaborative effort, exactly how it plays out is going to  
3 have to be worked out as far as the implementation or the  
4 remedy.

5 We've done this in other Superfund sites. We've  
6 gone through the process. It takes some time, it takes  
7 some work, but we do get there. And with constant contact  
8 with the EPA about that, making sure they understand how  
9 our process works and how it interfaces with their 97005  
10 process concerning their water supply.

11 UNIDENTIFIED SPEAKER: As a follow-up to my question,  
12 in terms of those state agencies that DTSC then interfaces  
13 with, does DTSC interface with the California Public  
14 Utilities Commission?

15 UNIDENTIFIED SPEAKER: Not that I know of. I'm  
16 representing the project manager. She couldn't make it  
17 tonight. I would have to go back and confirm with her, but  
18 I don't think that we've contacted them.

19 UNIDENTIFIED SPEAKER: Is there a particular interest  
20 of the Public Utility Commission that we should be  
21 factoring into the --

22 UNIDENTIFIED SPEAKER: The Public Utility Commission is  
23 a constitutional authority of the state of California. It  
24 regulates drinking water, as well as drinking water rates  
25 and recovery of rates for the rate payers for the state of

1 California. They have a co-equal authority over health and  
2 water quality, and, therefore, they should, at least so far  
3 as some of the providers in this OU or public utilities,  
4 under the rule of the PUC and responsible to them, they  
5 need to be involved in this process themselves.

6 UNIDENTIFIED SPEAKER: Have we identified the end user  
7 of the drinking water in alternative No. 6?

8 MS. DESCHAMBAULT: No, we have not. We have talked  
9 with a couple of private water companies that have  
10 expressed some interest, but that will be negotiated by the  
11 responsible parties to implement the remedy. We wouldn't  
12 be setting that up at this time, but we have had some  
13 interest in the water.

14 UNIDENTIFIED SPEAKER: It looks like a continuous need  
15 for the 2000 gallons per minute is a reasonable assumption?

16 MS. DESCHAMBAULT: Yeah, it is. There is some  
17 potential for some additional growth, but the area has  
18 actually -- everything from the Southern California here in  
19 California water issues and the need to potentially import  
20 water, there is definitely an interest in taking this  
21 water.

22 UNIDENTIFIED SPEAKER: Thank you.

23 UNIDENTIFIED SPEAKER: I just have a quick question.  
24 And unless I missed it or I didn't read it, who is paying  
25 for all this?

1 MS. DESCHAMBAULT: The responsible parties.

2 UNIDENTIFIED SPEAKER: Okay. So the Omega?

3 MS. DESCHAMBAULT: Well, Omega Chemical Corporation is  
4 a corporation, and a number of facilities, entities, who  
5 brought the waste to the facility, there was a -- what's  
6 called, you know, a major parties who contributed the  
7 majority of the waste that has now migrated off site. And  
8 so the Potentially Responsible Parties have formed this  
9 group, the OPOG, and that was formed for dealing with the  
10 contamination in Operable Unit 1 and additional Potentially  
11 Responsible Parties down in Operable Unit 2 would also be  
12 called as parties to pay for the -- pay for the remedy.

13 UNIDENTIFIED SPEAKER: So it won't affect the residents  
14 or the business -- building owners?

15 MS. DESCHAMBAULT: No. This is all done under EPA  
16 Superfund settlements, agreements, orders for dollars,  
17 amounts, and claims.

18 MS. LANE: Any other clarification questions?

19 UNIDENTIFIED SPEAKER: In the alternative 6, it talks  
20 about -- you talked about this too -- about the treated  
21 water that would be distributed to the municipal water  
22 supply system. And you talked about the fact that you have  
23 a few already lined up that have contacted you to accept  
24 this water. Question: If you don't get those voluntary  
25 takers, are you going to impose this water on the municipal

1 water system or, in this case, the private water companies  
2 to take this treated water?

3 MS. DESCHAMBAULT: I don't believe we have authority to  
4 do that. I think our goal is to negotiate. Again, Fred is  
5 my fallback, or Steve. What happens at that point? We  
6 choose -- I guess we don't expect that.

7 MR. SCHAUFFLER: I don't think we've ever come to a  
8 case where we try to force somebody to take the water. For  
9 us, in terms the probability would drop to zero, if we  
10 found nobody who wanted this water, we'd have to look at  
11 some other end use for the water. That would probably be  
12 our response to the complete note in every possible water  
13 purveyor that might take the water if we need to find  
14 something else.

15 UNIDENTIFIED SPEAKER: I think there would be some kind  
16 of community resistance to having this water in their  
17 drinking water.

18 MR. SCHAUFFLER: That's part of what we have to learn  
19 through the public process. I can say that we have a  
20 number of entities that provide drinking water to  
21 municipalities and the private purveyors, and it seems to  
22 be working okay. I think sometimes it's probably the cost  
23 of doing something different is the difference in your  
24 water bill, and maybe that's part of what drives the  
25 acceptance. And again, we do have a number of remedies for

1 treating water or drinking water and work out -- and  
2 continue to work out right along this case, people will  
3 likely provide examples.

4 MS. LANE: So we have this gentleman.

5 UNIDENTIFIED SPEAKER: Yes. I have a question, what's  
6 probably very naive, but I think an important question.  
7 And that is alternative No. -- alternatives No. 3, 4, and 5  
8 have apparently higher standards for the reclaimed water.  
9 And does alternative No. 6, presumably, as you alluded to,  
10 the standards for reinjecting water are much higher than  
11 they are for drinking. Why not use the highest possible  
12 standards for generating drinking water?

13 MS. LANE: I think that's a comment. I think that's  
14 considered a comment. You can address that. Can you give  
15 your name?

16 UNIDENTIFIED SPEAKER: Sure, I can. My name is Steve  
17 Betterman (phonetically), and it's actually a comment about  
18 why -- you know, why the alternatives were designed the way  
19 they are.

20 MS. LANE: Okay. Then maybe you can explore that a  
21 little bit more when we get to the comment part.

22 UNIDENTIFIED SPEAKER: I'd like to, yeah. I'd like to  
23 make a comment for some information that will illuminate  
24 the question.

25 MR. SCHAUFFLER: It's a comment, but also a very good

1 question. When we go through the development of  
2 alternatives, we're given venues. We look at what are the  
3 requirements to be able to use the water in this way. And  
4 that's what we then apply to the costing of alternatives.  
5 So reinjection just has higher requirements that are driven  
6 by antidegradation and policies and things like that,  
7 requiring to treat to a higher level.

8           Drinking water can have a little bit of stuff in  
9 it and still be okay. ReInjection, on the other hand, is  
10 don't put anything back on a clean space that's not already  
11 there. So there's trace differences on what you have to  
12 treat to. We are also looking for what the requirements of  
13 that particular entity is, and that's the standard we go by  
14 to generate the cost, rather than saying, "Drinking water  
15 is this, but we're just going to go to something much lower  
16 than that."

17           One important thing to understand is there are  
18 drinking water standards that we showed up there. Most of  
19 the treatment technologies, if not all of them, actually  
20 treat to much lower levels than that. We typically remove  
21 the solvents, not the tech levels. So actually we are  
22 producing much cleaner water than the drinking water  
23 standards.

24           UNIDENTIFIED SPEAKER: This is usual rather than  
25 designed in or committed to?

1 MR. SCHAUFFLER: I'm not sure I understand your  
2 question.

3 UNIDENTIFIED SPEAKER: What you are saying, is it  
4 usually the case that, in fact, the water is much cleaner  
5 than the minimum necessary for drinking water?

6 MR. SCHAUFFLER: Yes.

7 UNIDENTIFIED SPEAKER: But that is not a commitment  
8 that, in fact, is the fact of.

9 MR. SCHAUFFLER: Well, actually, when you get the EPA  
10 97005, they actually are looking for technology that will  
11 go below those drinking water standards. If you have 50  
12 different contaminants and you treat them all just to the  
13 drinking water standards, you, in fact, may not have water  
14 that's really all that good to drink. So you need to go  
15 below that in order to make sure that, given the whole  
16 contaminants, it actually, in terms of this assessment,  
17 satisfies the protecting standard should be sufficient in  
18 terms of risk assessment, satisfies the protective  
19 standards.

20 And so, for example, if DPH looks for not only  
21 treatment systems that can treat to below the drinking  
22 water standard, but also for redundancy in this system to  
23 make sure that nothing ever gets through to the ultimate --

24 MS. LANE: Question here.

25 UNIDENTIFIED SPEAKER: The treatment mechanism that you



1 use in the OU1 unit, is it the same that you use for the  
2 OU2?

3 MS. DESCHAMBAULT: No. No. The Operable Unit 1  
4 interim system is just going through an air stripper, and  
5 then the material is caught on a gas-granulated activated  
6 carbon. The system we are talking about here is much more  
7 extensive. It's a whole train --

8 UNIDENTIFIED SPEAKER: That was my question, because it  
9 looks like a pretty sophisticated system. So the concern  
10 we would have is the experience and the ongoing and just  
11 the actual commissioning of that sophisticated system  
12 imposed in alternative 6.

13 MS. DESCHAMBAULT: Well, again, as Fred mentioned, that  
14 has been done at some other sites, and the process for that  
15 is regulated for the drinking water standards to be met  
16 through the process. But yeah, it would be something very  
17 different. The other one is just an aeration, and this  
18 would have much more, everything from oxidation -- and  
19 because downstream, I mentioned, we have other chemicals.  
20 We have to remove the hydrocarbons, the chromium.

21 So it will be a whole treatment train that would  
22 be in this much more complicated system, and it's all  
23 proven technology. We're not looking at doing anything new  
24 or unusual. These are all proven drinking water treatment  
25 processes that we are looking at.

1 MS. LANE: Is there any more clarification questions?  
2 One here and one in the back.

3 UNIDENTIFIED SPEAKER: Yeah, my question, I'm wondering  
4 with the plume moving like 500 feet a year as you were  
5 saying, is there any concern that it could reach the creek  
6 that runs into the San Gabriel River before you can get it  
7 cleaned up?

8 MS. DESCHAMBAULT: How far down is the creek?

9 UNIDENTIFIED SPEAKER: It's southwest like maybe a mile  
10 or so, I would say. It runs through Cerritos just south to  
11 Imperial Highway.

12 MS. DESCHAMBAULT: She's asking about a creek that's  
13 south of -- she said that runs through Cerritos. And she  
14 was wondering when -- if the plume is advancing, what is  
15 the possibility of it impacting that creek? And I'm not  
16 sure where -- I think we need to talk and find out exactly  
17 where it is, and we could do some calculations and take a  
18 look at that.

19 MS. LANE: And then there was one more question.

20 UNIDENTIFIED SPEAKER: Yes. I did observe in the  
21 background paperwork I read that there may be an issue of  
22 understanding of water rights in this basin. If the Water  
23 Replenishment District is listed as the water master, in  
24 fact, it's the state of California Department of Water  
25 Resources, so that's -- I guess that's one issue.

1           And the other issue is in your alternatives, you  
2   apparently viewed water produced by these wells as an  
3   additional source, as new water. And that would not  
4   necessarily be correct, because all water pumped from these  
5   basins has to be replaced by the Water Replenishment  
6   District by law; and therefore, as you count that water  
7   extracted and produced to any benefit for use, which is the  
8   option -- your favorite option, that water would have to be  
9   used and the water would have to be replaced, and if it  
10   doesn't rain enough, that's going to be replaced by  
11   imported water from Northern California or the Colorado  
12   River.

13           If you were to use your next highest option and  
14   return to the spreading grounds, that would not be true.

15           MS. DESCHAMBAULT: So you've made a lot of good  
16   comments there. So the Water Replenishment District is the  
17   acting water master. Phuong Ly --

18           UNIDENTIFIED SPEAKER: No, not the water master.

19           MS. LANE: Department of Water Resource.

20           MS. DESCHAMBAULT: Yes, DWR, and we are meeting with  
21   their board next week. And we are talking with them and  
22   sharing our information with them. And the water rights  
23   issue is something that is very complicated that would have  
24   to be dealt with by the implementing party. The EPA  
25   selects the remedy and then PRP goes into design. The

1 water rights would be negotiated at that time with them.

2 It's not something that EPA would be negotiating,  
3 but the parties implementing the remedy. And they could be  
4 borrowed; they could work under somebody else's water  
5 rights. There are a number of ways that could be done,  
6 purchased.

7 So that's not something that we've looked into at  
8 this point, and again, it would be part of the design  
9 process and the implementation process of the responsible  
10 parties implementing the site would negotiate those water  
11 rights.

12 UNIDENTIFIED SPEAKER: Thank you. I agree with that.  
13 The other -- the last issue would be this is not a new  
14 water source of planting any imported water.

15 MS. DESCHAMBAULT: Yes.

16 UNIDENTIFIED SPEAKER: And you'd still have to replace  
17 it with imported water if it were to be extracted and put  
18 to beneficial use. So that's in your math, and that would  
19 not be correct.

20 MS. DESCHAMBAULT: I guess I'm not understanding -- I  
21 didn't think we would consider this a new water. We are  
22 taking this water and returning it through water rights to  
23 a beneficial use back in the area.

24 UNIDENTIFIED SPEAKER: Right. And that water would  
25 have to be replaced by the Water Replenishment District and

1 potentially by using imported water from Metropolitan Water  
2 District if there is insufficient storm water, which  
3 happens every year.

4 MS. LANE: Sir, I think this would be a great comment  
5 that you could add to our verbal comment period. And try  
6 to explain it a little bit more carefully, and we can  
7 record that and try to address it. I'd really appreciate  
8 that.

9 Are there any other clarification questions? And  
10 we can start with this gentleman with the first comment.

11 UNIDENTIFIED SPEAKER: Just as a follow-up, does that  
12 mean that the cost that showed up for that alternative 6  
13 does not include the replenishment assessment fee that has  
14 to be paid on this water every year?

15 MR. PERINA: The cost includes replenishment,  
16 assessment fees for reject drawing that will be sent  
17 outside of the basin, because all the alternatives will  
18 include either -- or infiltration and will result in a  
19 small percentage of the water that has high solids and will  
20 be held in official use and sent to an industrial sewer.

21 UNIDENTIFIED SPEAKER: No. I understand that.

22 MR. PERINA: The conveying fee will be applied to that.  
23 For the water that will have beneficial use, the plan is  
24 that that will be a negotiated agreement that will deal  
25 with an existing water right water. So this water that

1 will be extracted by the remedy will be in addition to a  
2 part of the existing water rights of what the usage --

3 UNIDENTIFIED SPEAKER: I understand that, but there is  
4 also a replenishment assessment fee that has to paid on any  
5 water you pump. What I'm asking is, is that number  
6 included in your cost?

7 MR. PERINA: That is not included.

8 UNIDENTIFIED SPEAKER: So that means, you know, to sort  
9 of answer to -- I think the lady in front had a question  
10 whether or not who is paying for this -- then that portion  
11 would be paid for by all of us.

12 MR. PERINA: That portion of the water will be -- this  
13 water extends on the existing water rights of the purveyor.  
14 This down water is extracted using the water rights of that  
15 purveyor in the basin. It will likely be offset by a  
16 decrease in production before this -- as compared to before  
17 this remedy starts up. That's the basic assumption of  
18 this.

19 UNIDENTIFIED SPEAKER: Tom, just to clarify, the Water  
20 Replenishment District was created to do a  
21 bucket-for-bucket replenishment of every bucket of water  
22 that's exacted out of the ground. Okay. So even though  
23 this is an adjudicated basin, and the existing water  
24 purveyors have the right to extract that water, for every  
25 acre foot of water they take out of the ground, they have

1 to pay the Replenishment District to put that water back in  
2 the ground, and that's what they are talking about.

3 Did you guys account for those costs? Even though  
4 you'll be utilizing existing water rights, there is still a  
5 replenishment assessment tied to those water rights that  
6 have to be paid.

7 MR. PERINA: Yes. The thinking behind this is that if  
8 an existing water rights holder pays replenishment  
9 assessment fees for 2000 gallons per minute and decreases  
10 his production by the same amount and gets this remedy  
11 water, there is no change in replenishment fee, so that is  
12 not a cost incurred by the remedy. Of course, this  
13 agreement will have to be reached between the Omega PRPs  
14 and the purveyor that they negotiate with.

15 MS. DESCHAMBAULT: Thank you.

16 MS. LANE: So do we have any public comments tonight?

17 UNIDENTIFIED SPEAKER: One additional clarification, if  
18 I may. Is there anything that's being discovered with  
19 additional contaminants or other sources of contamination  
20 that would significantly change any of the assumptions in  
21 the alternatives?

22 MS. DESCHAMBAULT: The question was, was there any  
23 additional information that could be possibly found that  
24 would change our selection of our remedy in this case, our  
25 alternative.

1 UNIDENTIFIED SPEAKER: Remedy of cost -- exactly.

2 MS. DESCHAMBAULT: One thing that's important to keep  
3 in mind is this remedy that we are selecting is a  
4 containment remedy to keep that dashed line from spreading.  
5 So regardless of what sources are within them, we would  
6 continue to treat the water to the drinking water  
7 standards. We would continue to pump and treat at the same  
8 rate of 2000 gallons per minute to keep that plume from  
9 moving.

10 The long-term restoration of the remedy would look  
11 at opportunities to work with cleaning up those areas,  
12 source areas, whatever they may be, if we found others to  
13 eventually restore the entire groundwater plume to natural  
14 conditions or drinking -- meeting standards. But no, it  
15 would not change for this remedy, which the intent is to  
16 contain it. It would not change.

17 UNIDENTIFIED SPEAKER: And it's unlikely that you'll  
18 find anything that would be enormously more expensive or  
19 prohibitive to treat and add to drinking water or  
20 something?

21 MS. DESCHAMBAULT: It is unlikely. We've done a very  
22 extensive search. We have a whole team, and outside  
23 contractors have been looking at the historical areas and  
24 historical sites within the area. And it would have shown  
25 up also in our field sampling analysis. When we were



1 taking these various over 1600 samples and going through  
2 file reviews, we would have had some indication of a hot  
3 spot that we would have further researched and identified.

4 Now, if somebody starts dumping today in a new  
5 site, and it's a chemical, highly concentrated, I think the  
6 same would still apply. We would look at upgradient,  
7 downgradient, look at the impact. We would do a source  
8 remedy for that source area in the alternate restoration  
9 and cleanup.

10 UNIDENTIFIED SPEAKER: Thank you.

11 MS. DESCHAMBAULT: Is there a question there? No?

12 MS. LANE: Any other questions? Are there any public  
13 comments tonight?

14 MR. ROWLEY: Paul Rowley, R-o-w-l-e-y, Golden State  
15 Water Company. For the five wells you identified here  
16 tonight, we are impacted by this plume. And I think by the  
17 questions that were asked and answered and given tonight,  
18 it's clear to us that you -- the devil is in the details.  
19 And the EPA, we support their efforts in containing this  
20 plume, and we know the importance of containing this plume,  
21 but the devil is in the details.

22 You refer to anything that happened in the  
23 negotiating process. We feel the negotiating process, at  
24 that point, it's too late. Things have to be flushed out  
25 now. The work has to be under work of the purveyors, which

1 is Norwalk/Santa Fe Springs Water Company, to work out  
2 those details of where the water is going to go. Because  
3 the 2,000-gallons-per-minute rate you are proposing, there  
4 is a finite built-out area over there. There's a finite  
5 water management area that you are proposing to put this  
6 water at, and we all have a facility that we have to work  
7 with to make sure this water is going to be used.

8           We, as a regular utility, we answer to the CPUC.  
9 So we are concerned about the impact that this proposal has  
10 for our existing facilities, the operational cost of  
11 facilities, and we just feel that the Feasible Study in  
12 this proposed solution doesn't get to those levels of  
13 details that we would need to see to support this overall.

14           Again, we support the goal, and we understand the  
15 importance of containment of this plume, but we still think  
16 the devil is in the details, and those details need to be  
17 flushed out.

18           So we will be working with the EPA -- we have been  
19 working with the EPA on this, but we are still concerned  
20 that we are still premature in this process, and a lot more  
21 discussion needs to occur between the purveyors of that  
22 region to work out the details so this will be a successful  
23 project.

24           MS. LANE: Any other comments? State your name and who  
25 you represent.

1 MR. VINATIERI: Thank you. My name is Joe Vinatieri,  
2 that's V-, as in "Victor," -i-n-a-t-i-e-r-i. I'm on the  
3 city council here at the city of Whittier. I'm not  
4 speaking on behalf of the city of Whittier or the city  
5 council. These are my personal comments.

6 First of all, welcome to Whittier. I'm sorry we  
7 are here under these circumstances, but we'd like to have  
8 you here, and please spend some money uptown when we get  
9 done here.

10 I wanted to bring out the fact that this area in  
11 the OU1 and OU3 -- and I recognize we are talking OU2, but  
12 they all are part and parcel. This area is a very dynamic  
13 and critical area for Whittier because the largest employer  
14 in southeast Los Angeles County is Presbyterian  
15 Intercommunity Hospital. It's right in this area, as well  
16 as several others. According to the chart that we saw,  
17 that you put up here, the highest concentration of PCEs is  
18 right in Whittier. And so I'm concerned about the point of  
19 action relative to OU3. And I recognize we are talking  
20 about OU2 tonight, but I think EPA needs to be aware of the  
21 fact that this is a critical thing, at least in my opinion,  
22 and my concern is, what is the plan of action for OU3, and  
23 what's the timetable to take care of OU3? Thank you.

24 MS. LANE: Any other public comments?

25 Well, we want to thank you all for coming tonight.

1 We'll be here for more time after to answer any other  
2 questions that you have. And, of course, remember that the  
3 comment period ends on October 21st, and we'll be happy to  
4 review your written comments. Thank you very much for  
5 coming out tonight.

6 (At 8:16 p.m., the meeting was  
7 concluded.)  
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1 STATE OF CALIFORNIA )  
2 ) ss.  
3 COUNTY OF LOS ANGELES )

4 I, ZAIRA JIMENEZ, C.S.R. No. 13283, do hereby  
5 certify:

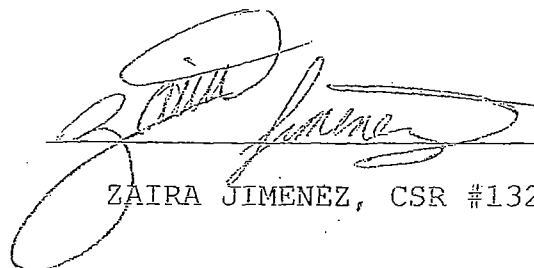
6 That prior to being examined, the witness named in  
7 the foregoing deposition was by me duly sworn to testify  
8 the truth, the whole truth, and nothing but the truth.

9 That said deposition was taken before me at the  
10 time and place therein set forth and was taken down by me  
11 in shorthand and thereafter was transcribed into  
12 typewriting under my direction and supervision, and I  
13 hereby certify the foregoing transcript is a full, true and  
14 correct transcript of my shorthand notes so taken.

15 I further certify that I am neither counsel for  
16 nor related to any party to said action, nor in any way  
17 interested in the outcome thereof.

18 IN WITNESS WHEREOF, I have hereunto subscribed my  
19 name this 14<sup>th</sup> day of October, 2010.

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ZAIRA JIMENEZ, CSR #13283

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